IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/087,224	§	Examiner:	Christensen, Scott B.
Filed: March 1, 2002	§	Group/Art Unit:	2144
Inventors:	§	Atty. Dkt. No:	5681-12100
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	§		
Title: System and Method for	§		
State Data Back-up in a	§		
Distributed Data System	§		
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REPLY BRIEF

Sir or Madam:

Further to the Examiner's Answer of July 2, 2007, Appellant presents this Reply Brief, and respectfully requests that this Reply Brief be considered by the Board of Patent Appeals and Interferences.

REPLY TO EXAMINER'S ANSWER

The below is presented in response to the Examiner's Response to Argument section in the Examiner's Answer. Appellant respectfully notes that the Examiner's Answer substantially repeats arguments made earlier in the prosecution, which have been addressed in the Appeal Brief. The Examiner's Answer further includes quite a bit of discussion regarding definitions of terms in the art as well as additional description or characterization of Everdell's invention. Appellant has presented below responses to any *new* arguments in the Examiner's Answer directed to the independent claims. Thus, where no new discernable arguments were presented in the Examiner's Answer, Appellant has not added further responses, but relied on those presented in the Appeal Brief.

Claims 1, 11, 12, 15 and 21

First, as has been pointed out numerous times throughout the prosecution of this case, **Everdell is simply not pertinent to the claims at hand**. Everdell teaches methods for monitoring and modifying network configurations in order to provide sufficient bandwidth to devices to prevent starvation during high-strain conditions (e.g., device failure or high-bandwidth). In contrast, Appellants claim relates to a specific manner in which to synchronize a back-up instance of the primary state of application server session data in a distributed store according to mutable attributes. Everdell does not teach, suggest, or even hint at this functionality. Everdell has nothing to do with application servers, session data, or the synchronization of a back-up instance of session data.

Second, Appellant notes that the Examiner's response to arguments section provide many explanations regarding the "broadest reasonable interpretation" of terms in Appellants' claims; however, most of these interpretations neglect the normal definitions well understood by those of skill in the art. For example, the terms used in the claims (e.g., application servers, session data, states of sessions, binary differencing, etc.) do not necessarily have explicit definitions in the specification because they are such well-

understood terms of art. The Examiner improperly takes phrases from the claim out of context and ignores their status as terms of art. More detailed arguments are provided below with respect to each of the Examiner's arguments.

In the Examiner's Answer, with regard to arguments pertaining to **a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes**, the Examiner essentially asserts that a session and a network connection can be used interchangeably. Appellant strongly asserts that this is not the case (as one of ordinary skill in the art understands). For example, by the Examiner's own admission, a session typically includes a series of interactions over a lasting connection. A network connection, on the other hand, is the means by which the session is performed, not the session itself. A mere network connection is not a session. The Examiner has improperly equated these two terms. The cited portions of Everdell simply relate to establishing connections and using addresses to connect to appropriate servers and do not, in any way, teach or suggest session data on a node of a distributed store where the session data is accessible by a plurality of application servers and comprises a plurality of attributes, as recited in claim 1.

The Examiner also equates the term "state" with "any information associated with a system that describes the at least part of the current configuration of the system". The Examiner is taking this term out of context. The claim does not recite just "state." As stated in the claim, the primary state relates to <u>session data</u>, not <u>any information pertaining to a current configuration of a system</u>. Clearly, the primary state <u>of the session data</u> relates to session data (e.g., the state of interactions between, for example, a client and server) and not the configuration of a network as taught by Everdell.

Furthermore, the Examiner attempts to equate "network configuration data" with "session data" by mischaracterizing Appellants' specification and claims. For example, the Examiner equates "session data" with "any information associated with a web browser process(es), computing system hosting the web browser, the web server

process(es), the computing system hosting the web server, the computing system hosting an application server providing content to the web server, the application server process(es), or one or more applications, processes and/or threads hosted by the application server or optionally any other system involved in the distributed session". While session data may include information regarding the connection (e.g., address information, ports numbers, etc.), session data must be related to a session. Session data is clearly not just any data related to a configuration of a system (or the network configuration of a system); it must be related to a session between two or more entities (not the network configuration of an entire system, as in Everdell). No one of ordinary skill in the art reading Everdell's disclosure would consider it to be even pertinent to Appellant's claim 1, let alone to describe a first node of a distributed store comprising a primary state of session data configured for access by a plurality of application servers, wherein the session data comprises a plurality of attributes After broadly and incorrectly interpreting Appellants' claims, the Examiner concludes his argument with a summarization of the cited portions and arguments presented throughout the prosecution of this case. Appellant has already addressed these arguments in the Appeal Brief.

In the Examiner's Answer, with regard to arguments pertaining to **another node comprising a backup instance of the primary state**, the Examiner relies on the same arguments as above. Appellants assert that the Examiner's assertions suffer from the same deficiencies as noted above.

In the Examiner's Answer, with regard to arguments pertaining to **comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state**, the Examiner relies on an administrator examining statistics of the network in order to tune the NMS to provide better overall management service. **The Examiner appears to have ignored the fact that the claim clearly states that the system is configured to perform this comparison (i.e., not the administrator of the system).** Furthermore, the Examiner attempts to equate "statistical information" with "a benchmark of the primary state". However, statistical information is not a benchmark of a primary state of session

data, nor can it be used "to generate a subset of attributes of the session data that have been modified in the primary state" as required by the claims. The Examiner does note "even if paragraph [0166] does not disclose the required functionality, paragraph [0128] of Everdell does disclose that any changes to the configuration database are written to the backup configuration database". The Examiner goes on to conclude that changes must be performed by comparing the current state of the information to the previous state. **The Examiner's hindsight-based conclusion is unsupported by the actual teachings of the reference.** Appellants note that the particular paragraph relied on teaches that any changes to a configuration database may be replicated to a backup configuration database. There is no indication how this replication is performed, nor is there any suggestion that is performed as recited in the claim. The Examiner has provided no evidence, *whatsoever*, that backing up the configuration database includes comparing the primary state to a benchmark of the primary state to generate a subset of the attributes of the session data that have been modified in the primary state.

In the Examiner's Answer, with regard to arguments pertaining to **synchronizing the back-up instance of the primary state with the primary state using the subset of the attributes of the session data**, the Examiner relies on paragraph [0128] which merely discloses that the configuration database can be backed up with a backup configuration database. Again, there is no indication, *whatsoever*, that the backup is performed in the specific manner recited in the claims (in particular, in this limitation, and the previous limitation). This limitation and the previous limitation are not disclosed, suggested, or even hinted at by Everdell. Backups of database can occur according to numerous different methods, and the simple disclosure of database backup does not teach the particular technique presented in the independent claims.

Claims 2, 13, 16, and 22 and Claim 3, 17, and 23

In the Examiner's Answer, with regard to arguments pertaining to **perform binary differencing of a binary representation of the primary state and a binary representation of the benchmark of the primary state to determine the modified**

attributes and **to perform said binary differencing, one or more portions of the binary representation of the primary state are compared to corresponding portions of the binary representation of the benchmark of the primary state to determine the modified attributes,** the Examiner argues that all computers store parameters using a binary representation and that any comparisons must therefore be performed as a binary difference. First, binary differencing relates to differencing of binary representations of data. There are numerous ways to perform differencing, e.g., using different representations. While it is true that most (not all) computers store files in binary, it is not true that all comparisons must be performed using a binary technique. Thus, the particular technique of binary differencing is not inherent in any comparison of any data on a computer, as asserted by the Examiner.

Furthermore, the cited paragraph, [0566], does not relate, at all, to the primary state or benchmark state initially cited by the Examiner. Instead, this portion relates to an audit process for comparing differences in connection tables. Thus, the cited portion is unrelated to the primary state and benchmark state cited by the Examiner, and, moreover, does not even teach or suggest the concept of the claims. Finally, the Examiner also cites paragraphs [0126]-[0128] which relate to the backup process of the configuration database discussed above. The cited portions do not mention or even hint at binary differencing as recited in the claims, nor does the whole of Everdell even mention any type of binary comparison between the primary state of session data and a benchmark of the primary state.

<u>Claim 4, 14, 18, and 24</u> and <u>Claim 5, 19, and 25</u>

In the Examiner's Answer, with regard to arguments pertaining to perform object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to determine the modified attributes and wherein, to perform object graph differencing, one or more objects in the object graph representation of the primary state are compared to corresponding instances of objects in an object graph representation of the benchmark of the primary state to

identify the modified attributes of the primary state, the Examiner asserts that any graph representation must be stored as a binary file and that any comparison must therefore be performed as a binary differencing. As one skilled in the art understands, the comparison and differencing of object graphs is substantially different from binary differences. Simply because files are stored in binary does not mean that all differencing is performed as a binary differencing. This is well understood by anyone of skill in the art.

The concept of an object graph and comparing object graphs is well understood in the art. Everdell clearly mentions nothing of object graph differencing of an object graph representation of the primary state and an object graph representation of the benchmark of the primary state to determine the modified attributes.

Claim 6, 20, and 26

In the Examiner's Answer, with regard to arguments pertaining wherein the another node comprising a back-up instance of the primary state is another node of the distributed store, the Examiner relies on paragraph [0425] of Everdell which relates to the number of backup cards for each card in the network. However, this paragraph relates to the *redundancy of hardware cards* and does not indicate the presence of another backup node that includes a back-up instance of the primary state of session data.

Claim 8

In the Examiner's Answer, with regard to arguments pertaining to wherein the system is further configured to compare the set of the mutable attributes to a benchmark of the primary state to determine a subset of the attributes of the session data that have been modified in the primary state, the Examiner argues that the scope of claim 8 and claim 1 (and in particular the resulting sets) are the same; however, claim 8 recites a different set of functions than claim 1, and therefore differs in scope from claim 1. More specifically, claim 1 refers to generating a set of attributes that have been changed, while claim 8 first generates a set of attributes that are mutable, then performs the comparison

on that set to generate the subset of changed mutable attributes. Thus, claim 8 differs in scope from claim 1.

Furthermore, Appellant notes that there is no indication of "mutable attributes of the session data" or the particular comparison being performed (i.e., on the first set of mutable attributes) in Everdell. Instead, as argued above, Everdell only mentions that the backup configuration database may reflect changes to the configuration database, and does not teach, suggest, or even hint at the particular limitations recited in the claims.

CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1-26 was erroneous, and reversal of his decision is respectfully requested.

The Commissioner is authorized to any fees that may be due to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-12100/RCK.

Respectfully submitted,

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